Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Wireless LNP Forbearance	)	WT Docket No. 01-184
	)	

SPRINT PCS REPLY COMMENTS

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Summary

Sprint PCS submits its reply comments early so parties have the opportunity to consider and reply to the facts contained herein, including those set forth in the attached Declarations of Dennis Huber, Senior Vice President-Operations and Antonio Castañon, Senior Vice President-Customer Solutions. Their declarations defeat the "long on rhetoric and short on fact" criticism raised by LNP proponents. These declarations detail the significant network and operational costs and resources needed for the LNP mandate and explain why, particularly from a network and service reliability standpoint, it is unwise to implement pooling and porting simultaneously. The declarations also discuss LNP's negative effect on the implementation of other mandates, and the effect on opportunity costs. Their declarations explain that, while LNP may appear beneficial on the surface, a closer examination reveals that LNP is more likely to generate customer dissatisfaction than satisfaction.

Sprint PCS responds to arguments made by parties opposing forbearance. There is no factual basis to the argument that LNP has "great potential" as a number conservation measure. Sprint PCS also rebuts the claim that LEC/CMRS competition will suffer if LNP is forborne. With regard to "regulatory parity" claims, Sprint PCS reminds the parties that Congress itself determined that landline – and not CMRS carriers – were required to port numbers. Sprint PCS, as a relatively new entrant itself, disputes the claim that new entrants are disadvantaged by LNP forbearance. The Commission should also reaffirm that states are precluded from imposing LNP requirements on CMRS providers.

Sprint PCS again urges the Commission to act on LNP forbearance by the end of 2001. Money and resources are better spent on coverage buildout and new products and services. In addition, other mandates are in process and could be compromised by maintenance of LNP. Finally, and importantly, the concurrent deadline of pooling and number portability poses an unacceptable risk to network reliability. Thus, at minimum, the LNP mandate should be deferred.

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REPLY COMMENTS OF SPRINT PCS

Sprint Spectrum L.P., d/b/a Sprint PCS ("Sprint PCS"), submits this reply to the comments filed in this proceeding. Sprint PCS submits this reply in advance of the filing deadline[1] so parties in the proceeding have the opportunity to consider the facts contained herein, including those set forth in the Declarations of Dennis Huber, Senior Vice President-Operations for Sprint PCS (Exhibit A), and Antonio Castañon, Senior Vice President-Customer Solutions for Sprint PCS (Exhibit B), in the preparation of their reply filings.

The subject discussed in this reply is local number portability ("LNP"). Neither Sprint PCS nor any other provider of commercial mobile radio services ("CMRS") questions the need for CMRS carriers to begin participating in thousands-block number pooling. As Sprint PCS' Senior Vice President-Operations states in his declaration, "Sprint PCS is on track to meet the current November 24, 2002 deadline for [number pooling] activation."[2] But as he further cautions, "the FCC's current requirement that wireless carriers flash cut to both pooling and LNP

[1] While the Federal Communication Commission ("Commission") denied Sprint PCS' Petition to Advance the reply comments deadline ("WTB Denies Sprint PCS Request to Advance Reply Comment Date on Wireless LNP Forbearance Petition Filed by Verizon Wireless" DA 01-2302, released October 4, 2001), Sprint PCS is encouraged that the Commission believes it will have time to consider and act on the LNP forbearance issue by the end of the year 2001, if it chooses to do so.

[2] Dennis Huber Declaration, Exhibit A at ¶ 13.

porting on the same date poses an unreasonable risk to network reliability and service quality."[3] For this and other reasons discussed in Sprint PCS' filings, the Commission should forbear the LNP mandate or, alternatively, suspend the effective date as suggested in Sprint PCS' Comments.

I. THE COSTS OF LNP ARE ENORMOUS

State public utility commissions ("PUCs") uniformly oppose forbearance of the regulatory LNP mandate, although only one PUC even discusses the Section 10 statutory forbearance standard that governs this proceeding.[4] The most common objection of the states is that the Verizon Wireless forbearance petition is "long on rhetoric and short on fact":

> Verizon has not quantified its costs for implementing full portability. . . . Thus, the FCC is lacking the cost component of Verizon's cost-benefits analysis, making it impossible to evaluate Verizon's claims.[5]

Again, Sprint PCS is submitting this early-filed reply and the attached declarations to address this PUC concern, and to give PUCs and others an opportunity to respond to the facts submitted.

The cost to implement LNP is large, as the following table demonstrates:

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[3] Huber Declaration, Exhibit A at ¶ 41.

[4] Only Vermont mentions Section 10, but its discussion is limited to conclusions rather than any analysis. *See* Vermont PUC at 3-4.

[5] State Coordination Group at 3 and 6 (appended as an attachment to the Texas PUC Comments). *See also* New Hampshire PUC at 4 (Verizon "provides no cost data of any kind."); Ohio PUC at 9 ("Verizon fails . . . to support its waiver request with actual cost data."); Association of Communications Enterprises ("ASCENT") at 20 ("Verizon's declarations are most remarkable for the complete absence of any supporting quantifiable data.").

Total Projected Sprint PCS Implementation (pre-November 24, 2002) Costs[6]

Number pooling (including MIN/MDN Separation)	$58,717,000
LNP porting	$35,809,000
Total	$94,526,000

Sprint PCS' Information Technologies' organization, the group responsible for modifying all the company systems needed to operate in an LNP environment, expects to devote 118,000 man-hours to LNP implementation between now and November 24, 2002.[7] This is work that is in addition to the work needed to implement number pooling (requiring another 108,000 man-hours).[8]

The really sizable costs of LNP, however, are recurring operational expenses — the costs Sprint PCS would incur after LNP is implemented. As the following table demonstrates, Sprint PCS expects to incur $52.7 million on average during the first two years that LNP is operational:

Projected Sprint PCS Operational Expenses Annual Average for period 2003-2004

Number pooling	$9,467,500
LNP porting	$52,714,000
Total	$62,181,00

Again, Sprint PCS expects to incur recurring operational expenses of this magnitude for as long as LNP exists.

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[6] The figures in this table are estimated total company costs. The figures in the attached declarations are lower because they include only those estimated costs in the Operations and Customer Solutions organizations.

[7] Huber Declaration, Exhibit A at ¶ 23. For the record, Sprint corrects man-hour estimates contained in its earlier filings.

[8] *Id.* at ¶ 22, *see* no. 7.

During the four-year period 2001-2004, Sprint PCS expects to spend a total of $218. million on both pooling and LNP. This figure would fall to $77 million — by over $141 million or by 65 percent — if the LNP mandate was eliminated. Sprint PCS currently serves over 13 million customers, approximately 11 to 12 percent of all mobile customers. If other carriers realize similar savings by not having to deploy LNP, the national savings would approximate $1 billion. It bears remembering that during this same time period Sprint PCS and other CMRS providers are facing increased capital investment and operational costs as a result of other regulatory mandates.

Several points bear emphasis concerning this cost data. First, neither pooling nor LNP will generate any new revenues for Sprint PCS, since neither capability would result in Sprint PCS offering a new service. Accordingly, the sizable implementation costs and recurring operational expenses must therefore be recovered from customers — namely, they must either (a) pay more to receive the same services and features they enjoy today, or (b) pay the same prices as today but receive fewer services (fewer minutes) and/or pay extra for features that are free today.

Second, because all competing CMRS carriers are subject to the same regulatory mandate, the industry LNP "investment" will not enable any carrier to distinguish its services in any way (*e.g.,* provide consumers with new services or alternatives). In this regard, the argument is made that LNP will intensify *price* competition among CMRS carriers, because LNP supposedly will make it easier for customers to switch service providers. But available facts do not support this contention. As Sprint PCS pointed out in its comments:

- *Without* LNP, prices for mobile services have fallen sharply — 24 percent since February 1999, while

- *With* LNP, prices for fixed landline local services have *increased* by 11.7% since February 1999.[9]

Inasmuch as all carriers will be encountering the same new expense and inasmuch as LNP will not result in the provision of a single new service, the more reasonable assumption is that prices for mobile services will increase — as the experience with the LEC industry appears to confirm.

However, there is a third, very real cost of LNP that received little attention in the comments: resources and money spent on LNP are necessarily resources and money that are not available for other investment. A recent market study conducted by the Strategic Policy Research ("SPR") confirmed what consumers have been telling the CMRS industry since its inception: "The biggest current limitations of wireless are geographic coverage, cost and security."[10] But the SPR market study discovered some new findings of note, including:

- "One in-three business users also cite major data limitations, including speed and available applications;"[11] and
- "Two-thirds of current or likely wireless users indicate high-speed wireless rollout should be a priority for U.S. policy makers."[12]

The Council of Economic Advisers has estimated that consumer benefit from third generation ("3G") technologies and services will range from "*$53-$111 billion annually*" and cautioned that "delays in the introduction of these services can be extremely costly to consumers."[13] Yet, if Sprint PCS is compelled to implement LNP, the estimated $52+ million that it must spend

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[9] *See* Sprint PCS Comments at 10.

[10] *See* Strategic Policy Research and Knowledge Systems and Research, "3G Wireless Market Assessment," at 11 (Sept. 2001), *available at* www.spri.com/news.htm.

[11] *Id.* at 9 and 11.

[12] *Id.* at 10. *See also id.* at 19.

[13] The Council of Economic Advisors, "The Economic Impact of Third-Generation Wireless Technology," at 1 and 6 (Oct. 2000).

annually in order to operate in an LNP environment is necessarily money that it cannot use to accelerate other services that the public would find of value.

There is yet another cost that the Commission must consider when it weighs the costs and benefits of LNP as it should under the forbearance statute — namely, network reliability and service quality will be jeopardized if carriers must convert to LNP and pooling on the same date. The Commission has repeatedly affirmed that maintaining network reliability is of "the utmost importance," and it not only required LECs to phase-in LNP (without pooling), but later extended the original schedule because "we consider network reliability to be of paramount importance."[14] The Commission similarly determined that a staggered rollout of number pooling is "necessary" to preserve landline network reliability.[15]

In contrast, the Commission has required CMRS carriers to "flash cut" to both LNP and pooling on the same date and on a date that is in the middle of their busiest sales season — a time when carriers ordinarily introduce no new capability in their networks. As stated by Sprint PCS' Senior Vice President-Operations, the concurrent conversion schedule "poses an unreasonable risk to network reliability and service quality":

> There is, quite simply too much work to do involving so many systems and network elements in too little time. I have far less concerns with activation of pooling on November 24, 2002, because most work related to the MIN/MDN separation and pooling will be completed months in advance of the activation date. However, much less time for testing will be available for LNP, and any delays in implementation (*e.g.*, a vendor slips a delivery date) would result in even less time available for the conduct of quality testing.[16]

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[14] *Third LNP Reconsideration Order,* 13 FCC Rcd 16089, 16097 ¶ 10 (1998); *First LNP Reconsideration Order,* 12 FCC Rcd 7236, 7285 (1997).

[15] *See First NRO Order,* 15 FCC Rcd 7574, 7646 ¶ 159 (2000).

[16] Huber Declaration, Exhibit A at ¶ 41.

Mr. Huber identifies the risks that could occur with the premature conversion of LNP,[17] and he specifically recommends that if the Commission decides not to eliminate the LNP requirement, "it should at minimum delay the implementation date"[18]:

> If the goal is to better ensure that network reliability and service quality are not impacted by the conversion to these new technologies, the FCC at minimum should defer the LNP activation date until (a) number pooling has been activated, and (b) there is confidence that any problems created by the pooling conversion (*e.g.*, roaming capabilities) have been solved.[19]

In summary, in conducting a cost-benefits analysis, the Commission must not only compare the incremental benefits of LNP to consumers against the substantial costs to implement and operate LNP, but it must also weigh the lost opportunity costs because capital devoted to LNP diverts investment in more productive areas, and consider the increased risk to network reliability and service quality.

II. THE BENEFITS OF LNP ARE NOT AS ROBUST AS THEY MAY FIRST APPEAR

LNP proponents (state PUCs and resellers) would give the impression that LNP is critical to the market for mobile telecommunications services, with WorldCom claiming that LNP is a "win-win situation" for consumers.[20] LNP proponents specifically assert:

- "Failure to require LNP for wireless carriers will result in unreasonable rates, terms and conditions for wireless service."[21]
- "[A]pproval of the [forbearance] petition . . . would be anticompetitive."[22]
- LNP forbearance requests are an "attempt to forestall the development of competition in the telecommunications marketplace."[23]

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[17] *See id.* at 17- 19¶¶ 41-46.

[18] *Id.* at ¶ 42.

[19] *Id.* at 21 ¶ 51.

[20] WorldCom at 7.

[21] New Hampshire PUC at 3.

[22] Connecticut PUC at 3.

[23] State Coordination Group at 3.

- "[T]he wireless industry's failure to comply with the LNP mandate will only impede competition."[24]
- We "believe that LNP capability for all carriers will encourage more competition in the marketplace."[25]
- "The inability to retain one's wireless phone number, consequently, obstructs consumer choice in wireless carriers and necessarily hinders competition in that industry."[26]
- "Were customers able to switch wireless carriers without losing their number assignment, could wireless prices have been pushed down even further?"[27]
- LNP will "promote competition and provide many consumer benefits, such as lower rates and better service quality."[28]
- "LNP is necessary to maintain and increase the level of competition in the CMRS industry."[29]
- "Without LNP, if customers suffer poor service quality, unsatisfactory service, or high rates from their wireless provider, of if another provider later introduces a more attractive calling plan, they must stay with the current provider if they want to keep their phone number."[30]
- LNP will promote "competition and the furtherance of consumer welfare through the enhance of service quality, affordability, and variety."[31]

Notably, these claims suffer from the same criticism these parties make of the Verizon Wireless forbearance petition: the claims are "long on rhetoric and short on fact."[32] In fact, the LNP proponent arguments are barren of facts.

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[24] *Id.* at 8.

[25] Michigan PUC at 3.

[26] Vermont PUC at 4.

[27] New Hampshire PUC at 11-12.

[28] WorldCom at 4. LNP cannot possibility improve service quality since LNP will not result in the construction of a single new cell site or other build-out activities; in fact, LNP will likely have the opposite effect as resources and money devoted to LNP necessarily cannot be devoted to improving coverage and services.

[29] WorldCom at 5.

[30] *Id.* at 7.

[31] Association of Communications Enterprises ("ASCENT") at 4.

[32] State Coordination Group at 3.

The CMRS market is robustly competitive without LNP, and competition in the mobile sector is far more intense than in any other telecommunications sector. The FCC Chairman has stated that the CMRS industry is at "the cutting edge of innovation. I think it's at the cutting edge of competitive principles:"[33]

> I cannot imagine any other industry segment that can better laud their state of economic competition as "meaningful." Prices are down and falling. Innovation, churn and penetration are up and still climbing.[34]

Indeed, the Connecticut PUC recognizes that the "CMRS market is currently highly competitive" and that "[c]ompetition in the wireless market is growing rapidly."[35]

What is more, there is no evidence that the absence of LNP acts an obstacle to changing service providers. The Commission has recognized that "almost one in five wireless subscribers have switched carriers in the past year."[36] A recent J.D. Power and Associates Survey found that "the length of time a typical wireless user stays with a carrier before switching is growing shorter — from 2.54 years on average in 1999 to 2.40 years in 2001."[37] Given these facts, the unsupported assertions that the absence of LNP "obstructs consumer choice" and "impedes competition" are simply not credible.

The LNP proponents also fail to recognize the inconveniences that LNP would pose to customers, including:

- A longer and more complicated activation process;

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[33] Transcript of Remarks of Chairman Michael K. Powell Before the Cellular Telecommunications Internet Associations CTIA Wireless 2001 (March 20, 2001).

[34] Separate Statement of (then) Commissioner Michael Powell, *1999 Spectrum Cap Order*, 15 FCC Rcd 9219, 9296 (1999).

[35] Connecticut PUC at 3 and 9.

[36] *Sixth Annual CMRS Report* at 23.

[37] J.D. Power and Associates, "Wireless Phone Penetrating Among U.S. Households Climbs Above 50 Percent as More First-Time subscribers Enter the Marketplace" (Sept. 26, 2001), *available at* www.jdpa.com/presspass/pr/pressrelease.asp?ID=170.

- Delays in activation;
- The possibility of double billing;
- The prospect of needing to purchase a new handset in order to port to another carrier;
- The possibility of using the new handset for outgoing calls, while the old handset is used for incoming calls;
- The possibility of diminished roaming capabilities;
- Delays in improved coverage, service quality or new capabilities; and
- Increased service prices.[38]

In summary, there is no record evidence supporting the conclusion that LNP is a "win-win situation" for consumers.[39] LNP was not necessary for the 20 million Americans that changed service providers during 2000, nor was it necessary for the millions of additional customers that have changed carriers this year. And, the facts are that LNP will be extraordinarily expensive to implement and operate and will result in customer frustration.

III. A RESPONSE TO OTHER LNP PROPONENT ARGUMENTS

Sprint PCS below responds to miscellaneous arguments made by parties opposing forbearance of the LNP mandate.

A. LNP as a Number Conservation Measure. The Texas PUC contends that wireless LNP would "conserve a huge number of telephone numbers" because LNP would supposedly eliminate the need for CMRS carriers to maintain an inventory of numbers for customers that "churn."[40] According to the PUC, CMRS providers "strand" at "any one time" nearly 2.3 million telephone numbers in Texas alone. The Texas PUC's facts are erroneous because it has made a computational error.

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[38] *See* Castañon Declaration, Exhibit B at ¶¶ 34-39.

[39] WorldCom at 7.

[40] Texas PUC at 2-3.

Twenty-two NPAs have been assigned to Texas, the equivalent of 176 million telephone numbers.[41] According to the Texas PUC, mobile customers use approximately 7.5 million numbers — or 4.3 percent of all numbers available in Texas. The PUC states that because of churn, "at any one time, approximately 2,265,972 wireless customers in Texas are switching from one wireless provider to another":

> Thus, 2,265,972 numbers are stranded and the wireless provider winning the customer must assign a new number to that customer. If the wireless provider could port all or even some of the telephone numbers it would conserve a huge number of telephone numbers.[42]

However, the 30 percent churn rate that the Texas PUC recites is an *annual* churn rate. An annual churn rate of 30 percent is the equivalent of a monthly churn rate of 2.5 percent. Thus, the number of mobile customers that switch carriers in Texas in a given month is 188,831 — not the 2,265,972 figure cited in the Texas PUC comments.

Sprint PCS also cannot agree with the characterization of these 188,831 numbers as "stranded."[43] While carriers must "age" numbers for no longer than 90 days,[44] the numbers are available for reassignment to different customers at the end of the aging process. Besides, even if these 188,831 numbers could be properly classified as "stranded," this quantity of numbers constitutes only one-tenth of one percent of all numbers available in Texas. Accordingly, there is no factual basis to the Texas PUC's conclusion that LNP has "great potential" as a number conservation measure.[45]

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[41] There are approximately eight million telephone numbers available with each NPA.

[42] Texas PUC at 3.

[43] *Id.*

[44] *See* 47 C.F.R. § 52.15(f)(1)(ii)("Numbers previously assigned to residential customers may be aged for no more than 90 days.").

[45] Texas PUC at 3.

B. LEC/CMRS Competition. As noted, the Connecticut PUC, alone among the states, acknowledges that "the CMRS market is currently highly competitive" and that this competition "is growing rapidly."[46] It states, however, that competition in the fixed landline market is limited and the mobile service "appears . . . to provide the greatest opportunity for competitive alternatives to residential customers."[47] The Connecticut PUC asserts that it is "imperative that the wireless carriers be required to port telephone numbers and further stimulate competition at the local exchange service level for residential consumers."[48]

Sprint PCS does not understand this point. Over 122 million Americans use wireless service today.[49] A recent J.D. Power and Associates survey found that 52 percent of American households subscribe to mobile service — a 93 percent increase over 1995.[50] The same study reported that average wireless minutes of use have increased 32 percent from 2000 and now stands at 422 minutes monthly.[51] Given this extensive use of mobile services, is the Connecticut PUC suggesting that mobile service can become a competitive influence on landline services only if people discontinue landline service in favor of mobile service? In fact, wireless/landline substitution is already occurring, with WorldCom noting that "for every three new wireless subscribers there is one less wireline subscriber."[52]

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[46] Connecticut PUC at 3 and 9.

[47] *Id.* at 8.

[48] *Id.* at 9-10.

[49] *See* www.wow-com.com.

[50] *See* J.D. Power and Associates, "Wireless Phone Penetrating Among U.S. Households Climbs Above 50 Percent as More First-Time subscribers Enter the Marketplace" (Sept. 26, 2001), *available at* www.jdpa.com/presspass/pr/pressrelease.asp?ID=170.

[51] *See id.* Significantly increased usage explains why "monthly revenues per subscriber have now begun to rise." *See* ASCENT at 13.

[52] WorldCom at 10, *quoting* RCR WIRELESS NEWS, "Every Three wireless Subscribers Equal One Less Wireline Subscriber, Says Study Author" (Aug. 13, 2001).

Wireless LNP will also not achieve the Connecticut PUC's goal of intensified competition between the mobile and fixed sectors. As the PUC recognizes, price is an important consideration in a consumer's decision to purchase wireless service.[53] Coverage and service quality (*e.g.,* blockage rates) are also important considerations. The resources needed for LNP, however, are resources the CMRS industry cannot use to install additional cell sites, expand coverage to new areas or improve service quality in existing service areas. In fact, LNP would undermine the Connecticut PUC's objective. Requiring the CMRS industry to spend over $1 billion for a technology that will support no new services will only increase the price differential between mobile and fixed services. Increasing the price of mobile service is not a productive way to encourage consumers to use wireless instead of landline networks.

Sprint PCS also reminds the Commission of its original LNP forbearance decision in which it delayed LNP to allow CMRS carriers greater flexibility to complete network build-out, technical upgrades, and other improvements that are likely to have a more immediate impact on enhancing service to the public and promoting competition.[54] LEC-CMRS competition (i.e. displacement), in particular, will benefit if CMRS carriers are allowed to take resources otherwise devoted to LNP and put them to better use by improving network coverage and services.

C. Regulatory Parity. The State Coordinating Group contends that LNP forbearance "would discriminate to the detriment of wireline carriers who already have spent millions of dollars to deploy LNP technology."[55] The Ohio PUC similarly asserts that "as a matter of regulatory parity, the FCC should also require wireless local service providers to implement LNP":

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[53] *See* Connecticut PUC at 8.

[54] In the Matter of Cellular Telecommunications Industry Association's Petition for Forbearance From Commercial Mobile Radio Services Number Portability Obligations, WT Docket No. 98-229, *Memorandum and Opinion Order*, 14 FCC Rcd 3092 (1999) ¶ at 22.

[55] State Coordinating Group at 10.

> Verizon's petition is now asking for the application of a discriminatory policy that would excuse the wireless industry from comply with the FCC's non-discriminatory mandate for LNP.[56]

The simple response is that Congress consciously adopted the complained of "discriminatory policy." Section 251(b)(2) of the Communications Act requires LECs, but *not* CMRS carriers, to provide local number portability. As Commissioner Abernathy noted recently, "our job is to implement the statute, not to pursue our own policy preferences."[57] There is no parity issue here.

D. New Entrants Are Disadvantaged. WorldCom asserts that a "new provider is at a great disadvantage in attracting customers because every customer wishing to change to the new provider would be faced with a phone number change in the past."[58] Sprint PCS is a "new entrant" CMRS provider, having introduced service only five years ago. In five short years, Sprint PCS has become the nation's fourth largest CMRS carrier (serving over 13 million customers) even though it did not have the 10-year head start of its larger cellular competitors and has not engaged in the acquisition strategy of its larger cellular competitors. Sprint PCS can state with confidence that the absence of LNP has not and will not stifle its growth. Instead, the LNP mandate will divert resources and efforts from competitive activities to the detriment of our subscribers.

E. LNP and State Preemption. The Vermont PUC asks the Commission "to recognize that States such as Vermont are not preempted from establishing LNP-related rules for CMRS providers" if the Commission eliminates the federal LNP requirement.[59] The Commission can-

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[56] Ohio PUC at 6 and 9.

[57] Hon. Kathleen Q. Abernathy, FCC Commissioners, FCBA Luncheon Address (Sept. 17, 2001).

[58] WorldCom at 8.

[59] Vermont PUC at 3 and 7.

not grant the requested relief. First, Section 10(e) of the Communications Act "precludes a state from applying or enforcing provisions of federal law where the Commission has decided to forbear."[60] Second the Commission has already rejected the Vermont argument, in ruling that the Pennsylvania PUC was without authority to require wireless carriers to implement LNP before LNP was implemented nationally:

> [E]ven if wireless carriers could overcome the technical burdens and implement LNP in Pennsylvania, the repercussions could be widespread. Because of the manner in which wireless carriers offer their services, they cannot develop a localized number portability method without affecting the other states in their service areas and the carriers with whom they have roaming agreements across the country. Forcing wireless LNP implementation before the Commission's deadline would have an impact on more than just the Pennsylvania area codes at issue, even if wireless carriers only had to implement LNP in Pennsylvania.[61]

To remove any future controversy, the Commission should reaffirm in its LNP forbearance order that states may not impose LNP requirements on CMRS providers.

F. LNP in Australia. Several parties point to the fact that LNP was recently implemented in Australia.[62] The relevance of this fact is not apparent since (a) the CMRS industry does not assert that LNP is technically infeasible and (b) no other country has a forbearance statute like Section 10 of the Communications Act. Moreover, those parties pointing to the availability of LNP in other countries neglect to mention that even with LNP, mobile customers in other countries pay far more for service than do American consumers, as the following comparison illustrates:

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[60] *High-Speed Access to the Internet,* 15 FCC Rcd 19287, 19307 n.64 (2000), *citing* 47 U.S.C. § 160(e).

[61] *Pennsylvania Numbering Order,* 13 FCC Rcd 19009, 19035-36 ¶ 41 (1998).

[62] *See* New Hampshire PUC at 4; NARUC at 3 n.3; WorldCom at 7.

COMPARISON OF SPRINT PCS WITH THREE AUSTRALIAN CARRIERS

	Sprint PCS[63]	Telstra[64]	Vodafone[65]	Optus[66]
Plan Name	Free & Clear	Flexi-Plan 80	My Choice 77	Rollover 77
Price U.S.	$39.99	About $40	About $37	About $37
Price AU	About $80	$80	$77	$77
Included Minutes	2,500	167	130	103
Connection Fee	$34.99	?	$71.50 AU	?
LNP	No	Yes	Yes	Yes

Sprint PCS is confident that an Australian consumer having $40 U.S. to spend on mobile service would much prefer receiving 2,500 minutes monthly without LNP than LNP with plans that include only 103-167 minutes monthly. This evidence further confirms that, contrary to the unsupported assertions of LNP proponents, LNP does not guarantee low prices.

IV. WHILE THE COMMISSION NEED NOT ACT ON "INTERNET TIME," IT SHOULD ACT PROMPTLY (BY END OF YEAR) ON THE LNP FORBEARANCE ISSUE

Sprint PCS reiterates its request for expedited action on the Verizon Wireless forbearance petition.[67] Sprint PCS will spend approximately an estimated $5 million between now and the end of the year on LNP implementation alone. Assuming the other national carriers are incurring similar expenses, a Commission decision at the end of the year, rather than today, is the equivalent of $45 million. Moreover, there is an equally, if not more, important opportunity cost that hinders wireless carriers' ability to provide better products and services to wireless customers.

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[63] *See* www.sprintpcs.com.

[64] *See* www.telstra.com.au.

[65] *See* http://production.vodaecom.atwww.com/checkout/plansonly.asp.

[66] *See* www.optus.com.au.

[67] *See* Public Notice, "WTB Denies Sprint PCS Request to Advance Reply Comment Date on Wireless LNP Forbearance Petition Filed by Verizon Wireless" DA 01-2302, released October 4, 2001.

Thus, the sooner LNP is forborne, the sooner wireless carriers can better focus on other mandates and on meeting the wireless customer's desire for improved coverage, better service, and advanced services.

The FCC Chairman has acknowledged that the Commission must be "efficient and responsive in Internet time":

> We are acutely aware that a decision that is way too late is worse than a bad decision early. We need to be more effective and quick at doing that. * * * It's our job, though when [an issue is] brought to us, to try to digest it rapidly and see if we can't get out of [the] way.[68]

Sprint PCS does not ask for a decision on "Internet time." It does respectfully request that the Commission announce its decision on the LNP forbearance issue by the end of the year.[69] Sprint PCS understands that as a result of the processes under which the Commission must operate, the $5 million it will spend on LNP planning and implementation is money "lost," if forbearance is granted. But the costs of LNP implementation will mushroom after the first of the year — for Sprint PCS and most other wireless carriers.

Sprint PCS appreciates that Commission decisionmaking within 90 days is "out of the norm." But the issues raised by the forbearance petition are straightforward, the applicable statutory legal standards are clear, and the Commission addressed this issue only 2 1/2 years ago. As Sprint PCS explained in its comments, one of the reasons the Commission recited for delaying rather than eliminating the LNP mandate is "based on an inaccurate assumption, and the second reason is based on a flawed analysis."[70] With the facts presented herein, Sprint PCS urges

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[68] Transcript of Remarks of Chairman Michael K. Powell Before the Cellular Telecommunications Internet Associations CTIA Wireless 2001 (March 20, 2001).

[69] What is importance from a resource management perspective is that the FCC announce its decision promptly, not that it release the test of its decision.

[70] Sprint PCS Comments at 7.

the Commission to expeditiously conclude that forbearance of the regulatory LNP mandate is required by Section 10 of the Communications Act.

V. CONCLUSION

The FCC Chairman has stated as "markets become more competitive, I think the government has a duty and an obligation to reevaluate whether the rule continues to serve its purpose":

> [T]he Commission . . . has a duty and an obligation to reevaluate and revalidate or get rid of rules that are artificial or structural constraints on growth.[71]

The Chairman has further said of the CMRS industry that "I cannot imagine any other industry segment that can better laud their state of economic competition as 'meaningful'":

> Prices are down and falling. Innovation, churn and penetration are up and still climbing. And, as this item points out, the newer PCS licensees are adding more new customers than the incumbent cellular carriers. All of this seems pretty "meaningful" to me.[72]

The Chairman made the latter statement two years ago — at a time when there were 69.2 million mobile customers and when 37.6 percent of the U.S. population had a choice of three providers.[73] According to the Commission's most recent data, at the end of 2000 there were 109.5 million mobile customers and 75 percent of the population could choose from at least five CMRS carriers — with 47% having the opportunity to choose among "at least six different mobile telephone operators."[74]

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[71] Transcript of Remarks of Chairman Michael K. Powell Before the Cellular Telecommunications Internet Associations CTIA Wireless 2001 (March 20, 2001).

[72] Separate Statement of (then) Commissioner Michael Powell, *1999 Spectrum Cap Order*, 15 FCC Rcd 9219, 9296 (1999).

[73] *See Fourth Annual CMRS Report,* 14 FCC Rcd 10145, 10151 and Table 2A (June 24, 1999).

[74] *Sixth CMRS Annual CMRS Report,* FCC 01-192, at 506 (July 17, 2001).

Sprint PCS submits that, applying the statutory forbearance criteria, the Commission is required to eliminate its LNP requirement. But even if the Commission could conclude that the Section 10 criteria are not satisfied, no one could possibly contest the fact that LNP mandate is "no longer necessary in the public interest as a result of meaningful economic competition between providers of [mobile] service." And, at minimum, for the reasons stated in Sprint PCS' filings, the Commission should suspend the effective date of the LNP mandate.[75]

Respectfully submitted,

SPRINT SPECTRUM L.P., d/b/a Sprint PCS

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[75] 47 U.S.C. § 161(a)(2). *See also* Separate Statement of (then) Commissioner Michael Powell, *1999 Spectrum Cap Order*, 15 FCC Rcd 9219, 9296 (1999)("The Act, in section 11, further mandates that we repeal or modify any regulation that is 'no longer necessary in the public interest as a result of meaningful economic competition.'").

Exhibit A

Declaration of Dennis Huber
Senior Vice President-Operations
Sprint PCS

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Wireless LNP Forbearance	)	WT Docket No. 01-184
	)	

DECLARATION OF DENNIS HUBER

I, Dennis Huber, hereby declare as follows:

1. I am the Senior Vice President – Operations for Sprint PCS. I submit this declaration in support of the Sprint PCS request that the FCC eliminate the requirement that wireless carriers provide local number portability ("LNP"), or at least delay LNP implementation until after thousands-block number pooling has been activated, with additional time to ensure that the new pooling network and systems are stable.

2. So the facts are straight and the record is clear, the assumption that "implementation of LNP is a necessary precondition to the implementation of number pooling" (FCC Order 99-19 ¶ 43) is not entirely accurate. LNP and pooling share a common new LRN network architecture and both require MIN/MDN separation. But as I discuss below, considerable additional work is necessary to implement LNP that is not needed to participate in number pooling. Number pooling and LNP are each massive undertakings, and it is not prudent to convert to and activate both capabilities on the same date, especially on a date that is in the middle of our busiest sales season.

3. This declaration covers the issues associated with implementing LNP and number pooling from the perspective of my Operations organization. I do not cover subjects addressed in the declaration submitted by Tony Castanon, Senior Vice President – Customer Solutions of Sprint PCS.

I. Qualifications and Responsibilities

4. As the Senior Vice President-Operations for Sprint PCS, I am responsible for the network design, engineering, operations, network build-out, systems development, Sprint Sites USA, and intercarrier services. Over 6500 Sprint PCS employees report to me.

5. My organizations, especially Network and Information Technologies, are responsible for implementing both LNP and pooling. My organizations are also responsible for implementing the Communications Assistance for Law Enforcement Act (CALEA), Phase I E911 service, Phase II E911 service, service to Telephone Text (TTY) devices, and N11 (211, 511 and 711) call routing. From a network/systems perspective, the FCC's decision requiring wireless carriers to implement all of these mandates over the same time period is not ideal and not consistent with prudent business practices applied to sophisticated technology.

6. In addition to ensuring that Sprint PCS meets these mandates, my organizations and I also have an important responsibility to meet the company's business plans which are tied directly to meeting and exceeding the expectations and needs of our customers. Thus, the demands of the business coupled with the demands of meeting regulatory mandates have greatly strained the resources within my organization.

II. Executive Summary

7. LNP and pooling are each massive undertakings that require the expenditure of extraordinary resources, both capital and labor. Current estimates are that Sprint PCS's Operations Group will spend over $47 million to implement number pooling (including the MIN/MDN separation discussed below) and an additional $30 million to implement local number portability. These are implementation costs (i.e. pre-November

24, 2002 costs) for my organization alone, and these estimates do not include the recurring expenses that Sprint PCS will incur in operating and maintaining these new and modified systems (i.e. post-November 24, 2002 costs).

8. As a company, we currently estimate that over the four-year period 2001-2004, the total cost to develop, implement and support both pooling and LNP will exceed $218 million. The elimination of the LNP requirement would reduce these estimated costs by 65% — or by over $141 million.

9. Sprint PCS currently serves over 13 million customers, approximately 11 to 12 percent of all mobile customers. If other carriers realize similar savings by not having to deploy LNP (and I suspect they will since they are undertaking the same work), the national savings would exceed $1 billion. It bears remembering that during this same time period Sprint PCS and other wireless carriers are facing increased capital investment and operational costs as a result of other regulatory mandates.

10. Two points bear emphasis. First, neither pooling nor LNP will generate any new revenues to Sprint PCS since neither capability results in Sprint PCS offering a new service. The sizable implementation costs and recurring operational expense must therefore be recovered from customers — namely, they must pay more in order to receive the same services and features they enjoy today.

11. Second, resources (both capital and labor) that Sprint PCS must devote to LNP are necessarily resources that it cannot devote to other projects including expansion of the network to new areas, the addition of "capacity" cell sites to improve service quality, more rapid deployment of new technologies such as third-generation (3G) networks, or the implementation of other regulatory mandates.

12. At minimum, the FCC should postpone the LNP implementation deadline, currently scheduled for November 24, 2002, which is in the middle of the wireless indus-

try's busy holiday season. From the perspective of resource management to network reliability and service quality, it is much better to implement two massive conversions sequentially rather than simultaneously. Sprint PCS will do its level best to activate both pooling and LNP on November 24, 2002, if required. But there are consequences with this concurrent, flash cut approach:

- Sprint PCS will have less time to conduct internal tests of LNP, jeopardizing its ability to maintain current network reliability and service quality levels;
- Sprint PCS will have far less time to conduct LNP tests with other carriers prior to LNP activation, again jeopardizing its ability to maintain reliable service to customers;
- Sprint PCS will have less time to train its employees regarding the new and modified systems;
- There is an increased risk that the ability of Sprint PCS customers to continue to roam on other networks will be put in jeopardy, given the amount of work even small carriers must undertake to maintain their roaming capabilities;
- Other projects that customers would find of value (*e.g.,* continued network expansion, introduction of 3G) will be slowed as finite capital and resources are instead devoted to LNP;
- There remains a substantial question whether the national Number Portability Administration Centers (NPAC) infrastructure can accommodate the dramatic increases in message volumes resulting in the wireless industry converting to pooling and LNP on the same date; and
- There will be a massive and instantaneous increase in message volumes among all SS7 networks, and if SS7 network capacity is not increased adequately (*e.g.,* traffic forecasts turn out to be too low), services to customers will be negatively impacted.

Simply stated, permitting Sprint PCS, at minimum, to defer LNP until after number pooling has been activated and "battle tested" will better ensure that the services that Sprint PCS provides to over 13 million customers will not be adversely affected.

III. Implementation of Number Pooling Is a Major Undertaking, But Sprint PCS Is on Schedule to Meet the November 24, 2002 Start Date

13. Implementation of number pooling is a major undertaking, as I describe below. However, I further show that Sprint PCS is on track to meet the current November 24, 2002 deadline for activation.

14. It bears emphasis that wireless pooling is significantly more complex than pooling within landline networks, because landline carriers did not need to take mobility management into consideration. Obviously, mobility management is a primary task in wireless communications, which is what wireless standards are really all about. Those standards require a nearly complete overhaul in order to account for pooling. Rewriting standards takes time, and network system modifications could not begin until the standards were finalized (IS-756a was published in December 1998; IS-841 was published in September 2000).

15. The biggest change that must be made for pooling is the MIN/MDN separation. Today, each mobile handset is assigned a Mobile Identification Number (MIN), which identifies the handset, the serving carrier, and the telephone number assigned to the customer. Sprint PCS' network and systems, like those of most other wireless carriers (all but GSM carriers) were designed to store and use only one value — the MIN.

16. Number pooling (and LNP porting) requires that the MIN and MDN be separated. In a pooling (and/or porting) environment, carrier networks and systems must be capable of storing and using two number values instead of one: a Mobile Directory Number (MDN), the customer's dialable phone number, and a Mobile Station Identification Number (MSID), which serves various functions including service provider identification and network registration. This "MIN into MDN/MSID" conversion is a major undertaking that impacts all parts of Sprint PCS' business, including the systems used to communicate with customers. Indeed, Sprint PCS has identified over 70 systems that require modification for pooling and the new MDN/MSID arrangement, including:

Access Billing – CDG
Accessibility – Roaming Ad Hoc Reports
Actiview
Affiliates Settlements Database
APC- Automated Payment Centers
ASI/Logistics
AutoNotes
Bulk Messaging Gateway
Business Billing Renaissance
CDR Archive
Commissions
Consolidated Layer
Cross Roads – Web Roam
CTI/ICR
CTI/Internet Suite
Customer Care Reporting
Data Import (# 10, #0, DA, ERT)
Data Warehouse
Data Barn – P2K
Data Barn – Renaissance PLS
Data Barn – Renaissance BB
Data Barn – MNS/EMMS
ECARE Wireless Web
Enterprise Integration
InfoView Cost of Access
InfoView Data Collector
IT Data Voice and Messaging
IVR Customer Care
MAF
Minotaur Fraud
MKIS
MyDownloads
Number Management System
Office Voice Mail Integration
Over the Air Parameter Administration
P2K Billing System
Personal Dress Book Sync
PLS Brite PrePaid Scrub/Reporting
PLS CF 611 Reports
PLS DA/OS Process
PLS Renaissance
PLS/ABS
POM
Predictive Dialer
Premiere
Premiere – Clarify Trouble Management System
Premiere for Business
RMS
RoamerXchange (External Data Feed)
RoamEx

Spending Control – ASL
Spending Control – Balance Notification
Spending Control – Cash Payment
Spending Control – Pay as you Go
Spending Control – Wireless Allowance
SprintPCS.com – connected
SprintPCS.com –eCommerce Shop
SprintPCS.com – eCRM Manage
SprintPCS.com – eCRM Online Activations
Unified Communications
Viewstart
Voice Activated Voice Mail
Voice Command – Voice Services Bundle
WIN IVR IT
Wireless Web Companion Site
Wireless Web Modem

17. The effort to modify these systems has already begun, and current plans are to complete all these MIN/MDN separation and pooling-related system modifications by mid-April 2002. Completion of systems modifications by this date will give Sprint PCS approximately seven months to test all systems as modified and to train employees accordingly.

18. There are additional steps that my Network and Information Technologies (IT) organizations must take to prepare for pooling. Network must determine which thousands blocks qualify for pooling. Once identified, IT must remove those blocks from customer management systems so as not to further contaminate the blocks. IT would then perform the intracompany port with the NPAC for assignment of a Location Routing Number (LRN). Network must update the Local Exchange Routing Guide (LERG) to indicate the pooled blocks and the LRN associated with them. After a new service provider requests a donated block, additional LERG updates must occur. Additional activities must be performed if a donated block falls within a Numbering Plan Area (NPA) split range.

19. Number pooling also requires software modifications to mobile switching centers (MSCs). The switch must be able to allow a phone to register with both an

MSID and MDN. It must modify existing messaging to handle both parameters in a variety of calling feature scenarios (*e.g.,* call forwarding, voicemail, short messaging). The MSC must also have appropriate logic to receive a call having both an LRN and an MDN in the messaging, determine whether the subscriber is homed to itself, and continue accordingly.

20. The necessary MIN/MDN MSC software is contained in the same switch generic that contains the software needed for Phase II E911 service. Sprint PCS primarily uses MSCs from two vendors (Lucent and Nortel), and it is currently testing in its laboratory these new generics. Sprint PCS has already advised the FCC in its E911 Docket 94-102 proceeding that it will complete throughout its nationwide network the installation of this new software no later than August 1, 2002 — or nearly four months in advance of the November 24, 2002 pooling start date. In addition to getting the actual software loads tested and rolled out to more than 100 network elements, there are associated configuration (datafill) changes that must be made to the translations. All codes in pooling must be marked as open for porting so that database queries can be done to obtain LRNs for routing numbers dialed from that code.

21. Number pooling, and the MIN/MDN separation in particular, also requires modifications to many other components within the Sprint PCS network. Additional network elements in need of modification are Home Location Registers (HLRs), voicemail equipment, short messaging service equipment, Voice Command equipment, and Wireless Web equipment. In modifying network elements, we must also change the procedures associated with operating those elements. We must further redefine our network troubleshooting, rehoming, capacity analysis, and numbering processes in order to continue providing best-in-class service to Sprint PCS customers. My organizations have adopted detailed implementation schedules for all of these network elements and proce-

dures so that there is adequate time for testing before the November 24, 2002 pooling start date.

22. We estimate that within my organization, the cost to implement number pooling (including the MIN/MDN separation) will exceed $47 million. The IT organization alone expects to devote 108,000 man-hours between now and November 2002 toward implementation of pooling and the MIN/MDN separation. These figures do not include the additional recurring expenses that Sprint PCS will incur after November 2002 in operating in a pooling environment.

IV. Sprint PCS Would Realize Substantial Savings of Costs and Resources If the Regulatory LNP Mandate Is Removed

23. The effort to implement LNP is also a huge effort. My organization expects to expend 118,000 man-hours between now and November 2002 and over $30 million on systems modifications needed for LNP (but not for pooling and MIN/MDN separation). These figures do not include the additional recurring expenses that Sprint PCS will incur after November 2002 in operating in an LNP environment.

24. Modifications to Existing Systems. LNP requires modifications to fewer systems than pooling (approximately 30), but the modifications required to these systems are far more extensive. The modifications to one of our billing systems illustrates this point:

> Billing System – Phase I Pooling (MIN separation)
> Total Work: Over 21,000 man-hours
>
> > We must update the billing database tables to add the MSID field where appropriate, including subscription tables, guiding tables, *etc.* In addition, outcollects processing needs to be redesigned to go from a MIN_Range-based processing system to a MSID_Range-based processing system. The incollects and outcollects processes must also be made to accept and send CIBER 22 and 52 records, which are the new wireless LNP

compliant format for roaming call detail reports in a pooling or porting environment.

Billing System – Phase II Porting modifications
Total Work: Over 30,000 man-hours

In order to support porting, the billing system would have to undergo a massive database table redesign to match the Intercarrier Communications (ICC) and Service Order Administration (SOA) message formats. Existing customer data would itself need to be parsed in order to accommodate the new table format. In addition to existing customer data redesign, there would be new/additional customer information that will need to be captured specific to porting. These table updates include an entire set of porting flags that would update the subscription as it passes through the various stages of porting. We would also need permanent porting flags to identify subscribers who have ported in to Sprint PCS. Timer fields would need to be added to the subscriber record in order to determine when the subscription could be released to the provisioning queue from an "awaiting port approval" status. The subscriber records would also need to be able to capture the customer's porting authorization in the form of a .wav file or e-signature file, as well as the authorization data itself. Logic will need to be developed to support the authorization and validation of subscribers requesting to port their MDNs to other carriers. As appropriate, a number of graphic user interface (GUI) screens would need to be redesigned to display the MSID and other relevant porting data. Finally, porting would have a great impact on activities surrounding this billing system, such as a host of new methods and procedures, changes to system scripting, impact to fraud management, *etc.*

25. My organization must also redesign current activation processes to account for mandate rules to allow uninterrupted customer service during LNP processing. In our current environment, we establish network service for a customer as quickly as possible based on current network response times. To support LNP requirements, we must alter our current provisioning and billing process streams to include new logic derived from the integration with the ICC software package discussed below. We will not provision a foreign MDN until the ICC process has completed and we have the permission of the current service provider. This includes the special processing and new database required to support port validations on specific criteria. Those criteria include verifying the current service provider, verifying the code holder and block holder for the MDN in a

pooling environment, performing checks on rate center criteria to ensure proper rating can be achieved, and obtaining information on whether the MDN is currently involved in an NPA-NXX split. We will not de-provision a customer from our network until the NPAC has updated the LSMS of both service providers involved in the port request to ensure that Sprint PCS will meet criteria to support uninterrupted customer service.

26. New processes are required to support monitoring and reaction to any Numbering Plan Area (NPA) split. In a non-LNP environment, only those splits involving Sprint PCS-assigned codes require action. With LNP, every NPA split will require some action by every service provider engaged in porting. As customers are free to take an MDN from one service provider to another, constant monitoring of all codes involved in splits is necessary to validate if, in fact, we have a customer who is impacted. Dependent upon the exact circumstances we may face during split procedures, requirements will include additional SOA-to-NPAC communications. While SOA communications are required to support pooling, many additional types of messages and transactions are required with NPAC through SOA to support porting and the other unique facets that arise from the movement of MDNs between multiple carriers. For each additional type of messaging required the degree of complexity increases.

27. New and Modified System Interfaces. The challenge is not simply modifying dozens of critical systems for their internal processing, including the systems that customers interact directly with or the systems that our customer advocates use in dealing with customers. Another significant challenge is identifying and then modifying the interfaces between the systems that comprise a total process such as activating a customer on our network. A change in one system often requires a change in the interface used between that system and other systems that interact with the system being modified. For example, with the billing system discussed above, we have identified as many

as 15 new interfaces to other systems and applications that would require development based on the LNP revisions to the billing system. There also appear to be 20 or so current interfaces that would need to be re-designed.

28. We are currently in the process of completing our analysis of the interfaces that must be changed based on LNP systems modifications, but it appears that between 180 and 225 interface changes would need to be made:

- There will likely be approximately 80-100 modifications required to support new data that will be transmitted over existing interfaces; and
- There will likely be between 100-125 entirely new interfaces that would need to be built to support new functionality between existing and new systems. New systems include a port status tool, the ICC and SOA modules, an authorization documentation system, a pre-port validation tool, and porting MPE data warehouse for reporting. A handset validation tool will be added in this time frame as well, but it needs to exist to support pooling. The new interfaces will support transfer of data between front ends, billing systems, number management systems, provisioning systems, operational data broker systems, and the aforementioned new systems.

29. The identification of all interface changes and additions is critical, because the failure to modify even one interface (or make the correct modification) could adversely affect the performance of multiple systems. The task of interface identification is even more challenging with LNP because so many modifications would be made to multiple "Tier 1" systems at once, encompassing multiple processes and data elements. "Tier 1" means the primary operations systems — if they go down, Sprint PCS could not "do business," certainly not at current operational levels.

30. New Systems. LNP also requires design, development and implementation of several entirely new systems. The Verizon Wireless petition discusses the Service Order Administration (SOA) system for communications with the Number Portability Administration Centers (NPACs) and other carriers, and I will not repeat that discussion here. However, because wireless customers have far different demands and expectations compared to wireline customers, and because the NPAC/SOA system has been

designed for landline carrier requirements, Sprint PCS must install two new additional capabilities: (a) an Intercarrier Communications (ICC) module, and (b) pre-port validation database in order to meet the demands of wireless customers.

31. The ICC Module. The landline industry has decided that for its needs, most port requests should be completed within five days. The five days are comprised of one day to complete the intercarrier agreement on validity of the part (the ICC process); two to three days to physically go to the customer switch sites; and an additional day for SOA-to-NPAC communications.

32. Most wireless customers, however, expect their service to work almost instantaneously. The wireless industry has therefore agreed that single-line ports between wireless carriers should be completed within 2 1/2 hours. To achieve this customer-driven requirement, Sprint PCS, like other wireless carriers, is deploying an Intercarrier Communications (ICC) module in addition to SOA. The ICC is designed to automate and accelerate ports between wireless carriers so that service providers agree to the port within 30 minutes (vs. the 24 hours for LEC-LEC ports). The final two hours is set aside for the SOA-to-NPAC and NPAC-to-LSMS communications to complete the port and fully establish service. To clarify, this is a porting process only and has nothing to do with pooling; thus, it is an additional, complicated process separate from pooling.

33. Significant effort is also required to determine technical communications procedures between Sprint PCS' ICC software package and the packages used by other wireless carriers, in order to ensure that the automated ICC communications process not only works, but works seamlessly. New or enhanced Service Level Agreements (SLAs) will be required for every other service provider participating in LNP, both inside and outside of the 100 most populous MSAs, as all providers must participate in porting within six months of a bona fide request.

34. Intercarrier Connectivity. The complexity for the "connectivity" to other telecommunications service providers is several orders of magnitude larger than it is for wireline LNP. Wireline connectivity for LNP is typically bound to one ILEC and the surrounding CLECs. Wireless LNP, on the other hand, opens the connectivity challenge for porting to all wireless and wireline providers, thus elevating the security, SLA, operational, and business issues to a much higher order of magnitude and complexity.

35. Pre-Port Validation Databases. Completing most wireless-to-wireless ports within 2 1/2 hours also requires the deployment of a pre-port validation database. This database will account for and store the hundreds of millions of MDNs for all carriers, and the history of each number (*e.g.,* code holder; block holder; whether the number is currently involved in an NPA split, currently involved in a port; for fraud protection, the history of ports; whether the MDN block is identified as a portable block; and whether the first port in the same block has occurred). Sprint PCS will use the information in this database to verify information submitted with "port-in" requests. The cost to develop and implement this database is large. The recurring cost to maintain the database and keep the data current at all times will be even larger.

36. Error Resolution Processes. The complexity of LNP, the numerous inter-carrier communications, and different inter-carrier systems and processes all require sophisticated conflict and error resolution tools and controls to resolve conflicts within the 30-minute ICC window. The risk of errors or issues requiring some form of manual resolution, as evidenced in the landline industry, can be high — as high as 60 percent. Efficiencies in managing conflict and error resolution will be critical for maintaining customer satisfaction and reducing overall operational expenses. Automated resolution tools must be developed to decrease the average handle time associated with manual processes. Systematic categorization of error notices and the formatting and passing of

critical information from the SOA and ICC to core systems is necessary to facilitate porting processes.

37. LEC/CMRS Ports. Sprint PCS must also deploy some level of systematic handling of "interspecies" LNP (land-to-mobile or mobile-to-land ports). Although the wireless industry has adopted the standard ICC processing package, the landline industry will continue to utilize most manual procedures in use today. Accordingly, Sprint PCS must deploy a systematic solution to facilitate handling of port requests to/from a landline provider, in addition to the processes adopted by the wireless industry. The fixed and mobile industries continue discussion for what interspecies LNP procedures should encompass. Interspecies LNP will cause new or enhanced SLAs for every landline carrier participating in LNP, again both inside and outside the 100 top MSAs. Based on any new standards developed, each SLA will need to include specific technical and functional information to properly complete a port request.

38. Joint Industry Testing. There is also special consideration for the amount, and time required, to adequately perform Industry testing with both landline and wireless test partners. Industry testing must be completed with roamers, affiliates, resellers, landline carriers, and wireless carriers to ensure that upon the industry wide flash cut on November 24, 2002 that customer service will continue uninterrupted. This is a high-risk area for all providers to have adequate time to test. Testing involves every process related to porting and provisioning including ICC processing, provisioning and activations, SOA-to-NPAC communications, SOA-to-LSMS updates, network call routing and completion, and billing and rating. These tests must be completed with all types of test partners to ensure the flash cut of LNP will be successful.

39. Impacts to Resellers. Each of the above mentioned items required to support LNP (but not pooling) have added complexity when we consider reseller LNP. As

both the code and block holder of MDN and MSID in a pooling environment, we must to a large degree facilitate or manage the process to allow customers of resellers to port. Sprint PCS currently supports applications that are utilized by resellers to manage their customers. These reseller specific applications will need to be much more thoroughly integrated into the processes we create to support LNP. We will be responsible for the port validations, provisioning, and SOA-to-NPAC communications. As the facilities-based provider, we also have responsibility for the LSMS updates and related processing. Reseller systems, processes, and data must be more integrated into and supported by Sprint PCS in the same manner that we support LNP. Thus, not only must resellers revise their own systems to implement LNP, but they must also make modifications that are capable of inter-operating with Sprint PCS' new systems.

40. All of the above systems modifications and associated costs would be eliminated if the FCC removed the LNP mandate. The work discussed in this section IV is not needed for number pooling, and I believe the elimination of the LNP mandate would facilitate Sprint PCS' ability to implement number pooling on the date that the FCC has established.

V. Maintaining the Current November 24, 2002 LNP Deadline Poses an Undue Risk to Network Reliability and to Service Quality

41. I believe that the FCC's current requirement that wireless carriers flash cut to both pooling and LNP porting on the same date poses an unreasonable risk to network reliability and to service quality. There is, quite simply, too much work to do involving so many systems and network elements in too little time. I have far less concerns with activation of pooling on November 24, 2002, because most work related to the MIN/MDN separation and pooling will be completed months in advance of the activation date.

However, much less time for testing will be available for LNP, and any delays in implementation (*e.g.,* a vendor slips a delivery date) would result in even less time available for the conduct of quality testing.

42. If the FCC decides not to eliminate the LNP requirement, it should at minimum delay the implementation date. The LNP deadline should be deferred at least one year, so service providers and their employees have time to adjust to the new pooling environment, remove all remaining bugs, and ensure that customer roaming capabilities are not adversely impacted. If the FCC decides to defer LNP rather than eliminate the requirement, it should not reschedule the conversion date for the middle the industry's busiest sales season. In addition, the FCC should not establish a new LNP conversion date until it assures itself that pooling has been implemented successfully and that existing roaming capabilities have been preserved.

43. Impact on Customers. It is important to emphasize the different impacts that problems with porting and pooling will have on customers. The network and systems changes that my organization is making for pooling should have minimal impact on a customer's service. A carrier will conduct tests upon receiving a new thousands block, and it will assign to customers numbers from a new thousands block only after it is convinced that the numbers work properly. If there are problems with the block, the carrier will hold the numbers in reserve until the problems are rectified. In contrast, delays or problems in the porting process will impact customers directly, because they will be unable to receive any telephone calls until the problem is fixed.

44. Internal Testing. As noted above, Sprint PCS anticipates completing most systems work related to pooling by mid-April 2002, so it will have ample time to test all the systems modifications before the November 2002 pooling start date. (While Network components should be fully tested by mid-April 2002, the sheer number of switches in-

volved means that they will not be completely installed throughout Sprint PCS' nationwide network until August 1, 2002. Non-switch vertical service platforms, many of which require switch readiness as a prerequisite, have a national rollout complete date of October 31, 2002.) However, because of the added complexity of LNP, Sprint PCS does not anticipate completing all LNP systems work required for operational consistency until late September or October 2002. Four to six weeks is wholly inadequate to test the major systems modifications that must be made for LNP, and unanticipated delays in completing the LNP modification work would leave even less time for testing. Inadequate testing prior to service launch increases the risk that network reliability and service quality will be put in jeopardy.

45. Intercarrier Testing. Intercarrier testing is critical for LNP porting (but not pooling). The original industry plan was to conduct intercarrier LNP testing during the eight month period between October 2001 and May 2002, thereby allowing six months to fine tune the new system and engage in additional tests as appropriate. These testing dates are no longer achievable for a variety of reasons, including delays and industry's need to accelerate pooling design and implementation. As noted, Sprint PCS does not anticipate completing all LNP work necessary to support operational consistency until late September or early October 2002. Four to six weeks of intercarrier testing is possible, but given the magnitude of the changes being made and the number of tests that should be performed, 4-6 weeks of testing is far from adequate for such complex systems and networks and is unwise from a quality perspective.

46. The National NPAC Infrastructure. The national infrastructure used with LNP and pooling — the Number Portability Administration Centers (NPACs), the Service Order Administration (SOA) systems, and the Local Service Management Systems (LSMSs) — have been allowed to grow gradually, because landline carriers phased-in

LNP over time and thereafter phased-in pooling. Nevertheless, this national system designed for landline carriers continues to face major problems. Problems have been encountered with NPAC Release No. 3.0, which was intended to bring enormous efficiencies with the pooling process. The "slow horse" problem that adversely affects customers attempting to port numbers remains unresolved.

47. Even if these problems are solved before November 2002, the immediate addition of wireless porting and pooling will entail a dramatic increase in volumes handled by the national infrastructure. According to the FCC's most recent data (*Trends in Telephone Service,* August 2001), 5.4 million landline customers ported their numbers during the year 2000— an average of 415,000 ports each month. The FCC estimated in its *Sixth Annual CMRS Report* that one in five wireless customers — approximately 20,000,000 subscribers — switched carriers during 2000. This translates to an average of 1.6 million customers switching carriers each month. Assuming every mobile customer wants to keep his or her number (and ignoring land-to-mobile porting and wireless pooling messages), the national LNP system must be capable of handling on November 24, 2002 a large increase in porting volumes. It is my understanding that the national systems are being upgraded to handle additional volumes from wireless carriers. Nevertheless, an increase of this magnitude must be planned very carefully — or better, a means found to phase-in these large message volumes (*e.g.,* do wireless pooling followed by wireless porting at a later time). The "slow horse" problem, unless remedied, will only magnify the scope and extent of the problems encountered.

48. SS7 Networks. In addition to the systems that handle porting directly (the SOA/LSMS infrastructure for communicating LRNs to the industry), opening all codes for porting also presents a risk to the nation's Signaling System No. 7 (SS7) networks. When calls are dialed to numbers that are in codes that are open for porting, a database

SS7 query will be launched for *every* call attempt to *all* 10,000 numbers, not just the ported ones. This represents an additional pair of SS7 messages for each and every call termination to any number in an open code.

49. Industry has estimated that with a pooling conversion rate of 21 Numbering Plan Areas (NPAs or area codes) each quarter beginning in March 2002 (coupled with the pooling trials implemented by the states), approximately 160 NPAs will be in pooling by November 24, 2002. These codes will have to be opened for porting in order to accomplish pooling. This is a significant and immediate increase in total SS7 messaging on the infrastructure. Simultaneously adding wireless LNP would likely increase the number of open codes (to include porting in NPAs that are not yet pooled), which would make the immediate increase even larger, and exacerbate any stability or capacity issues that may arise.

50. One final comment is in order. I am told that some contend that the predicament the wireless industry finds itself — inadequate time to complete reliably all necessary steps — is the industry's own fault, which it could have avoided had it simply begun earlier. Those who make this argument do not understand the size and scope of work necessary to complete, in complex wireless networks and systems, the MIN/MDN separation and the other changes needed for pooling and LNP mandates while simultaneously maintaining our existing operational efficiencies. It took a period of time for the industry to develop specifications and standards for the MIN/MDN separation, a process made more complex by the fact that wireless carriers had to integrate wireless LNP planning into a process designed by a different industry sector (landline), which has different requirements and interests. Numerous industry-wide meetings were (and continue to be) conducted to help service providers get a manageable grasp on a project this massive, meetings that were essential since the LNP mandate affects all wireless

carriers nationwide, no matter how small. Equipment vendors thereafter need time to design and develop their modifications. The FCC's decision on December 29, 2000 requiring our industry to commence pooling in less than two years further required carriers to revise their planning and scheduling

51. In all events, the interests of wireless customers are not served by the premature activation of new capabilities that have not been adequately tested. If the goal is to better ensure that network reliability and service quality are not impacted by the conversion to these new technologies, the FCC at minimum should defer the LNP activation date until (a) number pooling has been activated, and (b) there is confidence that any problems created by the pooling conversion (*e.g.,* roaming capabilities) have been solved.

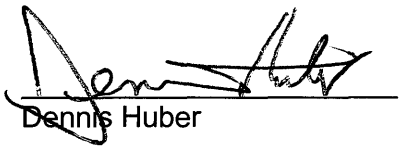
VI. Conclusion

52. The FCC has historically shown a commitment to network reliability. In fact, the FCC *required* landline carriers to phase-in LNP capabilities in their networks over time in order to preserve continued network reliability. Once they largely completed their LNP conversion, landline carriers were then given the opportunity to phase-in their pooling capabilities.

53. Given this history and given that wireless networks are far more complex compared to landline networks, the FCC's decision to require wireless carriers to flash cut nationwide to both LNP and pooling on the same date is troubling. Mobile wireless networks have become a critical component of our nation's telecommunications infrastructure. I submit that now is not the time to jeopardize the continued reliability of mobile networks.

54. The FCC should eliminate the LNP requirement. In my mind, the fact that 20 million mobile customers changed carriers during 2000 alone is proof positive that the absence of LNP is not a barrier to switching service providers. At minimum, the FCC should defer the LNP conversion date until it and the industry are confident that all new pooling systems are working and that ubiquitous roaming is not negatively impacted.

I certify that the foregoing is true and correct to the best of my knowledge and belief based upon the information I have at this time. Executed on October 5, 2001.



Dennis Huber

Sprint PCS Senior Vice President - Operations

Exhibit B

Declaration of Antonio Castañon
Senior Vice President-Customer Solutions
Sprint PCS

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Wireless LNP Forbearance	)	WT Docket No. 01-184
	)	

DECLARATION OF ANTONIO CASTAÑON

I, Antonio Castañon, hereby declare as follows:

1. I am the Senior Vice President – Customer Solutions for Sprint PCS. I submit this declaration in support of the Sprint PCS request that the FCC eliminate the requirement that wireless carriers provide local number portability ("LNP"), or at least delay LNP implementation until after thousands-block number pooling has been activated, with additional time to ensure that both customers and service providers have adjusted to the new environment.

2. This declaration covers the issues associated with implementing LNP and number pooling from the perspective of my Customer Solutions organization. I do not cover subjects addressed in the declaration submitted by Dennis Huber, Senior Vice President – Operations of Sprint PCS.

I. Qualifications and Responsibilities

3. As the Senior Vice President for Sprint PCS Customer Solutions, I am responsible for over 15,000 Sprint PCS employees who either interact directly with customers or support employees that do. Customer service is critically important to both customers and service providers. Customers decide to stay with Sprint PCS (rather than leave for the competition) in part because they have a good experience with Sprint PCS — namely, my customer solutions employees ("customer specialists"). Of course, Sprint

PCS must provide coverage and services at competitive prices. But in the end, Sprint PCS will succeed in our intensely competitive market only if customer specialists are knowledgeable, efficient, and treat customers with respect. The challenge for me (like my competitor counterparts) is to provide superior customer service when there is enormous pressure to reduce operational expenses, so that competitive and low prices are sustainable.

II. Executive Summary

4. LNP and number pooling each inject new complexities in the customer/service provider relationship. We expect, for example, that the time needed to activate service in a pooling environment will increase from 60-180 seconds per call because of the need to address two values — Mobile Directory Number (MDN) and Mobile Station Identification Number (MSID) — rather than the single value used today (Mobile Identification Number or MIN). Over 800 of the "on-line" documents that our customer specialists use must be modified to account for the MIN/MDN separation.

5. The MIN/MDN separation poses a special problem for customers with handsets incapable of being upgraded to operate in the new environment. Customer specialists will need to spend considerable time assisting these customers to make what may be a difficult decision for them: do they (1) purchase a new phone, or (2) keep their current phone but lose elements of existing functionality? Approximately 15,000 customer specialist employees must be trained to work in this new environment and just scheduling training for this many employees (without impacting current response times and service levels) will be a challenge.

6. LNP porting injects far more complexity into the customer/service provider relationship, at least for customers wanting to "port-in" their number to Sprint PCS. The

time a customer specialist must spend with each new customer will increase (over and above pooling) because additional information will be required from customers wanting to "port in" their current number and confirming that the number is eligible to be ported given the constraints of this phase of portability. (A unique tool must be created to provide customer specialists with precise pre-port validation information.)

7. Much of the work and time with LNP is in verifying the information the customer provides, engaging in the intercarrier communications process, and handling the error resolution process that will often require manual intervention. Sprint PCS is accustomed to telling customers with precision when their new service will become active (*e.g.,* within two hours). Firm commitments will be difficult if not impossible to make in an LNP environment. Indeed, there are situations (*e.g.,* an MDN is the first number in an open NPA-NXX to be ported) where even if the LNP process "works" as advertised, service activation may be delayed by five days or longer. The complexity and variables inherent to this phase of LNP limitations and processes dictate the development of sophisticated and costly tools.

8. I will again refer to the situation in which an NPA-NXX is open for porting, but it is the first number to be ported in that NPA-NXX. Customer specialists must have timely access to this information to effectively and efficiently handle the call and not inconvenience the customer. The pre-port validation tool – a tool not yet developed – must query multiple databases, including NPA-NXX tables, in order to provide customer specialists with accurate information and porting guidelines. In the situation described above, as outlined in industry requirements documents, a lapse of five business days must occur before a number can be ported from a NPA-NXX that is open for porting. If, however, the NPA-NXX has not been opened for porting, the port request may not be processed for up to 45 days. I am confident that the average customer will have diffi-

culty understanding that such delays are due to the "process" that regulators have imposed.

9. The additional work involved with number pooling is significant, but manageable. We anticipate that pooling and the MIN/MDN separation will increase my organization's expense by approximately $9 million annually. While Sprint PCS will incur this new recurring expense without receiving any new revenues, I understand that this expenditure is necessary to preserve our nation's valuable numbering resources.

10. The additional work involved with LNP is enormous. For example, we currently estimate that we will need to hire an additional 300-500 customer specialists to support LNP (even with the automated tools that we have begun designing). For my organization alone, we currently estimate that recurring operational expenses will increase by at least $43 million annually.

11. It is important to emphasize that we have based our cost estimates using conservative assumptions. It is difficult to make any hard predictions because there is no experience from which to draw. (The landline model, with limited competition and different customer expectations, provides little guidance.) But if porting volumes are even higher than we predict, our annual operational expenses would increase even more dramatically.

12. I think I have a good sense of what the American consumer wants, both from talking to customers directly and by talking to customer specialists, each of who deals with dozens of customers every day. A recent article in the Wireless Insider (June 21, 2000 edition) aptly summarizes the current mood of the American consumer: "The bottom line for most customers today is, 'I want the cheapest plan, the best service, and throw in a free phone, too.'" The fact that, according to the FCC's own data, 20 million mobile customers (one in five) switched serving carriers during 2000 alone is, in my

mind, powerful evidence that LNP is not necessary to protect consumers or that the absence of LNP does not stand as an obstacle to consumers changing their service provider.

13. I am told that several parties have submitted comments with the FCC supporting the implementation of LNP. As a consumer myself, I support the concept of LNP; it is hard not to. The question, though, is do these parties understand that LNP comes at a cost — namely, a more complicated activation process, delayed service activation, degraded service in some situations, and higher prices for the same mobile services they receive today? I believe that if consumers were given the choice, they would overwhelmingly prefer lower prices with more robust coverage and advanced services without LNP, than higher prices with less coverage and less advanced services with LNP.

III. Number Pooling and the MIN/MDN Separation Add New Complexities to the Customer/Service Provider Relationship, Increase Operational Expense, and Pose Problems for Certain Customers

14. Number pooling and the MIN/MDN separation will add new complexities to the customer/service provider relationship, increase operational expense, and pose new problems for certain customers. We project that these new capabilities will add approximately $9 million annually in new operational expenses.

15. Number pooling, by itself, will have minimal impact on my organization. While the Information Technologies organization must change the systems my employees use in assigning telephone numbers, the process of assigning telephone numbers will not change in a material way once pooling becomes operational.

16. It is the MIN/MDN separation required for pooling that will have a bigger impact on my organization. This is because the handset validation and programming func-

tion will now require two different values — Mobile Directory Numbers (MDNs) and Mobile Service Identification Numbers ("MSIDs") — whereas customer specialists are accustomed to dealing with only one value — the Mobile Identification Number ("MIN"), which had singularly performed the function of both MDNs and MSIDs. Dealing with additional information will result in longer calls with customers when they activate their service, change handsets, or change MDNs (whether voluntarily or as part of an area code split). We currently estimate that 60-180 seconds will be added to each of these customer calls. One to three extra minutes per call may not seem like much time, until one realizes that Sprint PCS currently handles hundreds of thousands such calls each month (representing an increase in average handle time of 5,500 to 16,500 hours monthly).

17. All of Sprint PCS' 15,000 customer specialists (other than those involved in collection) must be trained to use the new MDN and MSID values. Over 800 of the online documents that my specialists use must be revised accordingly. Simply, the process of scheduling this many employees for training, without impacting response times and current service levels, is itself a challenge.

18. The MIN/MDN separation requires that MDNs and MSIDs must be programmed into customer handsets. This is a major issue, and the complexity of equipment validation is evidenced by extensive regression testing for MDN-MSID call processing. Sprint PCS currently supports over 100 different software loads distributed across more than 50 different handset models. Each software and hardware combination must be tested to validate compliance related to three programming methods: keypad, PST and over-the-air service provisioning (OTASP) programming. To date, more than 50 percent of handset-software combinations failed one or more programming method during regression testing. Customer specialists will need a new tool (and be

trained to use the tool) that will enable them to verify (by manufacturer, device model and current software version) which device is compliant and which requires a software upgrade or, possibly, replacement, and by what means (*e.g.,* keypad) the device is programmable.

19. The MIN/MDN separation is not an issue for customers with handsets that have been designed to support both the MDN and MISD values. Again, what is important to note is that the handset model and software load will dictate which of the three existing, if any, methods can be used to program the customer's equipment with the number values.

20. However, a sizable number of customers have handsets that cannot be reprogrammed to use MDNs and MSIDs. Many of these handset models are no longer in production or being distributed, and it is questionable, particularly given the recent economic slow down, whether handset vendors will be willing to expend resources to develop a software upgrade patch for use with these older phones. Currently, the only method of providing the customer with a software upgrade is in a Sprint PCS retail store or in a Sprint PCS logistical warehouse. OTASP and keypad methodology is not currently compatible with software upgrades.

21. Customers with handsets where no MDN/MSID patch is available will in most circumstances be able to continue to use their handsets to make and receive calls. (They will not work, however, if a number change is required, such as an area code split.) However, many of the features that customers are accustomed to using with their handset (*e.g.,* one-touch access to voicemail or Wireless Web) will no longer work, because Sprint PCS will have modified its systems to use the MSID rather than the MIN.

22. Customer specialists will be required to spend a considerable amount of time with customers on this handset issue, to explain what features will no longer work in the

new environment and to review the pros and cons of purchasing a new handset. These will not be easy calls, because most customers will have difficulty understanding why their phone that had been working just fine no longer provides the same functionality.

IV. LNP Would Add Enormous Expense to Sprint PCS

23. Preparing for and operating in a local number portability (LNP) environment is far more challenging and costly than preparing for and operating in a number pooling environment. The difference in complexity is evidenced by the difference in the new operating costs that Sprint PCS expects to incur. As noted above, we now estimate that pooling and the MIN/MDN separation will increase my organization's operating costs by $9 million annually. In contrast, we estimate that LNP porting will increase my organization's operations costs by at least another $43 million annually.

24. Activating service for a customer wanting to "port in" their existing MDN becomes much more complex than the activation process today. Customer specialists today assign customers new telephone numbers from a centrally administered number inventory system. While this system must be modified for pooling (by limiting the inventory to specified thousands blocks), the procedure used in assigning numbers to customers does not change in any material way. These systems will not work without modifications for LNP because, under LNP, a "port-in" customer to Sprint PCS will have a foreign MDN. Customer specialists will therefore require, and must be trained on system enhancements, new software solutions and processes.

25. There is much new information that Sprint PCS will require from customers wanting to port-in, and the need for information during the customer activation call will necessarily result in longer holding times for each call. We currently estimate that a call with a customer wanting to port his or her number will take between 60 and 180 seconds

longer than customers wanting a new telephone number. (This extra time is in addition to the extra time resulting from the pooling requirements.)

26. The customer specialist must complete the pre-port validation process prior to call completion should the queried response be invalid. The specialist would then need to revalidate the information and repeat the verification process with the customer. In addition, if the number cannot be ported for an extended period of time (*e.g.,* 45 days associated with a bona fide request process), the customer will need to decide if he or she wishes to proceed with the port — a decision that may not be easily made.

27. Once the new information is verified, the customer specialist will initiate the intercarrier communications process with the customer's former carrier. Ideally, the information that Sprint PCS will transmit to the former carrier will match the data it possesses. However, the experience with landline LNP suggests that the likelihood for errors, or mismatches, will be high.

28. The error resolution process, which Sprint PCS must be prepared to engage for both "port-in" and "port-out" situations, is complex and inherently inefficient, because it requires the manual intervention of employees from both the "old" and "new" service provider. I am concerned with the delays and unproductive time that will inevitably occur when my people play "phone tag" with their counterparts at the former service provider.

29. Once the data between the two service providers match, both carriers can begin the service order administration (SOA) process, uploading the new data to the Number Portability Administration Center (NPAC) so the NPAC can download the data to all service providers *via* their Local Management Service Systems (LSMS). In theory, this process (assuming a simple single-line, wireless-to-wireless porting scenario) is to be completed in 2 ½ hours. However, I am told that the experience with landline LNP is that this process can often take much longer.

30. This LNP activation process is radically different and far more complex than the current activation process. We estimate that my organization must hire 300-500 additional people to handle this new work. Two points about this estimate bear noting. First, we have been very conservative in our estimates. Second, the additional people we would need to hire are needed because of the extra work involved with LNP, not to handle additional customers. Should Sprint PCS become a net "winner" as a result of LNP, we will need to hire even more customer porting specialists.

31. The customer specialists involved with porting will require extensive training estimated to be at least 80 hours (again, demonstrating the complexity of the process). We must establish training curriculum and supporting materials. We must develop new means for customers wanting to port to reach the customer advocate porting specialists (*e.g.,* modify interactive voice response systems). The validation of equipment compliance represents a new process to customer specialists. Systematic look-ups and user guidance is necessary to provide greater operational efficiencies and decreased average handle time. A significant percent of manual queries will be avoided by logically programming this tool to confirm the compliance of the handset by electronic serial number (ESN) and software version. Additional table elements to provide necessary handset information will need to be added to existing ESN tables in order to support the query for LNP compliance. The data in the table will need to reflect all new equipment types as they are offered. In addition, data stewardship will be required for ongoing maintenance. Customer questions, multiple steps involved in processing a port request, and conflict resolution will be of a highly complex nature and will significantly increase call volumes and average handle time.

32. In addition, we believe we must develop, at a minimum, 20 new detailed, complex processes for the intercarrier and NPAC error resolution process. (The method

in which carriers and issues are resolved may be dictated by individual intercarrier service level agreements, which further complicates an already complex process.) All current trouble processes and online documents (there are several hundred) must be reviewed and modified to account for LNP. The addition of LNP will also require the production of over a dozen new recurring reports for quality control and other reasons.

V. The Impacts of LNP to the Mobile Customer

33. Some people believe that LNP is a "win-win" for consumers. Like most things in life, the answer is not so simple. In fact, LNP would impose real costs to consumers.

34. A more complicated activation process. LNP will result in a more complicated and time-consuming activation process because Sprint PCS will require much more information from customers wanting to port in their number. Many consumers will find the process confusing and frustrating.

35. Activation of service may be delayed. Mobile customers have come to expect that their service will be activated almost immediately, and Sprint PCS has a practice of giving firm activation commitments to customers upon request (*e.g.,* within two hours of leaving the retail store). It will be virtually impossible for Sprint PCS to "guarantee" service activation by a certain time in an LNP environment because no one can predict whether the error resolution process will be required (and if so, how long the process will take) or whether there will be problems or delays in the NPAC process.

36. Possibility of Service Interruption and/or Double-Billing. According to industry guidelines, a customer's service should not be interrupted because of delays in the porting process, but there is no guarantee that the old provider's services will not be deprovisioned before the new provider's services are provisioned, thereby resulting in a

customer's inability to make or receive calls. Conversely, the customer may experience a "mixed service" window in which the old and new provider's services function concurrently, most likely resulting in double billing. Imagine the customer's confusion and frustration if the customer could make outbound calls on the new service provider's network, but would receive inbound calls at the handset used with the "old" service provider.

37. Diminished Roaming Capabilities. Roaming partners are required to upgrade their networks to process call routing of ported number. However, there is a possibility that some carriers may not update their LSMS to reflect the new service provider information in a timely manner. This would result in a partial-failure of the call routing and would interrupt the service of the customer if he or she were roaming in that carrier's service area.

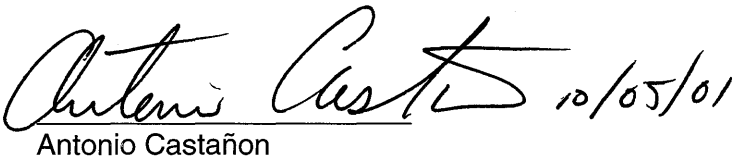
38. Delays in improved coverage, service quality, or new capabilities. The estimated $43+ million that Sprint PCS would spend annually to cover my organization's new LNP-related operational expenses is necessarily money that the company cannot spend in other areas, whether expanding coverage to new areas, adding capacity cell sites to reduce blockage rates in high volume areas, adding enhancements to services and features that customers find of value, such as Wireless Web and Voice Dialing, or even adding more customer specialists to ensure that our customer's questions and concerns about products and services may be handled timely and accurately.

39. Service Prices. I am not responsible for setting the prices that Sprint PCS charges for its services. Nevertheless, it is unrealistic to expect that a new annual operational cost of $43 million will not affect current pricing levels, especially when all competitors are facing similar increases in their operating expenses because they are implementing the same regulatory mandate.

VI. Conclusion

40. According to the FCC's own data, 20 million Americans— one in five mobile customers — changed service providers in 2000. This suggests to me that the absence of LNP is not an obstacle for consumers to obtain the service they want from their carrier of choice. I do not know whether the availability of LNP will increase "churn" rates. I do know that LNP will be expensive — for my organization alone, estimated at $43 million annually. If, however, churn rates increase as a result of LNP, my new operating expenses will correspondingly increase as well.

I certify that the foregoing is true and correct to the best of my knowledge and belief based upon the information I have at this time. Executed on October 5, 2001.



Antonio Castañon

Sprint PCS Senior Vice President – Customer Solutions

CERTIFICATE OF SERVICE

I, Jo-Ann Monroe, do hereby certify that on this 11th day of October 2001, copies of the foregoing "Sprint PCS Early-Filed Reply Comments" were served by U.S. first class mail, postage prepaid to the following:

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